Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended). A method of modulating the interaction between ~~at least two different proteins, wherein one of the at least two different proteins is represented by~~ a functional cell-surface fibroblast growth factor receptor, ~~or a fragment,~~ or a variant thereof, and ~~another of the at least two different proteins is represented by~~ a polypeptide having a binding site to said receptor, wherein ~~at least a part of~~ said binding site comprises at least one of the sequences set forth in SEQ ID NOS: ~~1~~ 2-146~~, or fragments, or variants, or homologues of said sequences, or fragments or variants of said homologues~~, said method comprising

i) providing a compound capable of interacting with the receptor ~~and/or polypeptide~~ at the binding site of the receptor for the polypeptide; ~~thereby interfering with said receptor and said polypeptide interaction~~,

ii) presenting the compound of step (i) to the ~~at least two different proteins~~ the receptor and the polypeptide.

2-3 (cancelled).

4 (original). The method according to claim 1, wherein the cell-surface receptor is selected from the family of fibroblast growth factor receptors (FGFRs) comprising FGFR1, FGFR2, FGFR3 and FGFR4

5 (currently amended). The method according to ~~claim 4~~ claim 1, wherein the ~~fibroblast growth factor~~ receptor is

FGFR1 ~~having the amino acid sequence set forth in Swiss-Prot Seq Nos: Q9QZM7, Q99AVV7, Q9UD50 or Q63827, or fragments, or variants thereof, or a functional homologue of said receptor~~.

6-7 (cancelled).

8 (currently amended). The method according to ~~the claim 7~~ claim 1, wherein the polypeptide is a cell adhesion molecule which is selected from the group ~~comprising~~ consisting of

- Neural Cell Adhesion Molecule (NCAM) ~~(Swiss Prot Ass. Nos: P13591, P13595-01, P13595)~~,
- Neural cell adhesion molecule L1 ~~(Swiss Prot Ass. Nos: Q9QYQ7, Q9QY38, P11627, Q05695, P32004)~~,
- Neural Cell Adhesion Molecule-2 (NCAM-2) ~~(Swiss Prot Ass. No: P36335)~~
- Neuron-glia Cell Adhesion Molecule (Ng-CAM) ~~(Swiss Prot Ass. No: Q03696; Q90933)~~,
- Neural cell adhesion molecule CALL ~~(Swiss Prot Ass. No: O00533)~~,
- Neuroglian ~~(Swiss Prot Ass. No: P91767, P20241)~~,
- Nr-CAM (HBRAVO, NRCAM, NR-CAM 12) ~~(Swiss Prot Ass. Nos: Q92823, O15179, Q9QVN3~~
- Axonin-1/TAG-1 ~~(Swiss Prot Ass. Nos: Q02246, P22063, P28685)~~,
- Axonal-associated Cell Adhesion Molecule (AxCAM) ~~(NCBI Ass. No: NP_031544.1; Swiss Prot Ass. No: Q8TC35)~~,
- Myelin-Associated Glycoprotein (MAG) ~~(Swiss Prot Ass. No: P20917)~~,

- Neural cell adhesion molecule BIG-1 ~~(Swiss Prot Ass. No: Q62682)~~,
- Neural cell adhesion molecule BIG-2 ~~(Swiss Prot Ass. No: Q62845)~~,
- Fasciclin (FAS-2) ~~(Swiss Prot Ass. No: P22648)~~,
- Neural cell adhesion molecule HNB-3/NB-3 ~~(Swiss Prot Ass. Nos: Q9UQ52, P97528, Q9JMB8)~~
- Neural cell adhesion molecule HNB-2/NB-2 ~~(Swiss Prot Ass. Nos: O94779, P07409, P97527)~~,
- Cadherin ~~(Swiss Prot Ass. No: Q9VW71)~~,
- Junctional Adhesion Molecule-1 (JAM-1) ~~(Swiss Prot Ass. Nos: Q9JKD5, O88792)~~,
- Neural cell adhesion F3/F11(Contactin) ~~(Swiss Prot Ass. Nos: Q63198, P1260, Q12860, Q28106, P14781, O93250)~~,
- Neurofascin ~~(Swiss Prot Ass. Nos: Q90924, Q91Z60; O42414)~~,
- B-lymphocyte cell adhesion molecule CD22 ~~(Swiss Prot Ass. Nos: Q9R094, P20273)~~,
- Neogenin (NEO1) ~~(Swiss Prot Ass. Nos: Q92859, P97603, Q90610, P97798)~~,
- Intercellular Cell Adhesion Molecule-5 (ICAM-5/telencephalin) ~~(Swiss Prot Ass. Nos: Q8TAM9, Q60625) or~~
- Galactose binding lectin-12 (galectin-12) ~~(Swiss Prot Ass. Nos: Q91VD1, Q9JKX2, Q9NZ03)~~, and
- Galactose binding lectin-4 (galectin-4) ~~(Swiss Prot Ass. No: Q8K419; P38552),~~

~~or fragments, or variants thereof~~.

9 (currently amended). The method according to ~~the claim 7~~ claim 1, wherein the polypeptide is a functional cell-surface receptor which is selected from the group ~~comprising~~ consisting of

~~-Fibroblast Growth Factor Receptor 1 (FGFR1) (Swiss Prot Ass. Nos: Q9QZM7, Q99AVV7, Q9UD50, Q63827),~~

~~-Fibroblast Growth Factor Receptor 2 (FGFR2) (Swiss Prot Ass. Nos: Q96KM2, P21802, Q63241),~~

~~-Fibroblast Growth Factor Receptor 3 (FGFR3) (Swiss Prot Ass. Nos: Q95M13, AF487554, Q99052),~~

~~-Fibroblast Growth Factor Receptor 4 (FGFR4) (Swiss Prot Ass. No: Q91742),~~

- Neurotrophin Tyrosin Kinase Type-2 (NTRKT-2) ~~(Swiss Prot Ass. No: Q8WXJ5)~~,

- Leukocyte Antigen Related Protein-Tyrosine Phosphatase (LAR-PTPRF)

~~(Swiss Prot Ass. Nos: Q9EQ17, Q64605, Q64604, Q9QW67, Q9VIS8 P10586)~~,

- Nephrin ~~(Swiss Prot Ass. Nos: Q925S5, Q9JIX2, Q9ET59, Q9R044, Q9QZS7, Q06500)~~,

- Protein-Tyrosine Phosphatase Receptor type S (PTPRS) ~~(Swiss-Prot Ass. Nos: Q64699, Q13332, O75870)~~,

- Protein-Tyrosine Phosphatase Receptor type kappa (R-PTP-kappa) ~~(Swiss-Prot Ass. No: Q15262)~~,

- Protein-Tyrosine Phosphatase Receptor type D (PTPRD) ~~(Swiss-Prot Ass.~~
~~Nos: Q8WX65, Q9IAJ1, P23468, Q64487)~~,
- Ephrin type-A receptor 8 (EPHA8/Tyrosine-Protein Kinase Receptor EEK)
~~(Swiss-Prot Ass. Nos: O09127, P29322)~~,
- Ephrin type-A receptor 3 (EPHA8/Tyrosine-Protein Kinase Receptor ETK-
1/CEK4) ~~(Swiss-Prot Ass. No: P29318)~~,
- Ephrin type-A receptor 2 ~~(Swiss-Prot Ass. No: Q8N3Z2)~~
- Insulin Receptor (IR) ~~(Swiss-Prot Ass. No: Q9PWN6)~~
- Insulin-like Growth Factor-1 Receptor (IGF-1) ~~(Swiss Prot Ass. Nos: Q9QVW4,~~
~~P08069, P24062, Q60751, P15127, P15208)~~
- Insulin-related Receptor (IRR) ~~(Swiss Prot Ass. No: P14616)~~,
- Tyrosine-Protein Kinase Receptor Tie-1 ~~(Swiss Prot Ass. Nos: 06805,~~
~~P35590, Q06806)~~,
- Roundabout receptor-1 (robo-1) ~~(Swiss Prot Ass. Nos: O44924, AF041082,~~
~~Q9Y6N7)~~,
- Neuronal nicotinic acetylcholine receptor alpha 3 subunit (CHRNA3) ~~(Swiss-~~
~~Prot Ass. Nos: Q8VHH6, P04757, Q8R4G9, P32297)~~
- Neuronal acetylcholine receptor alpha 6 subunit ~~(Swiss Prot Ass. Nos:~~
~~Q15825, Q9R0W9)~~
- Platelet-Derived Growth Factor Receptor Beta (PDGFRB) ~~(Swiss Prot Ass.~~
~~Nos: Q8R406, Q05030),~~
- Interleukin-6 Receptor (IL-6R) ~~(Swiss-Prot Ass. No: Q00560)~~,

- Interleukin-23 Receptor (IL-23R) ~~(Swiss Prot Ass. No: AF461422)~~,
- Beta-common cytokine receptor of IL-3, IL5 and GmCsf ~~(Swiss-Prot Ass. No: P32927)~~
- Cytokine Receptor-Like molecule 3 (CRLF1) ~~(Swiss Prot Ass. No: Q9JM58)~~,
- Class I Cytokine Receptor (ZCYTOR5) ~~(Swiss Prot Ass. No: Q9UHH5)~~
- Netrin-1 receptor DCC ~~(Swiss Prot Ass. No: P43146)~~,
- Leukocyte Fc Receptor-like Protein (IFGP2) ~~(Swiss Prot Ass. Nos: Q96PJ6, Q96KM2)~~,
- Macrophage Scavenger Receptor 2 (MSR2) ~~(Swiss Prot Ass. No: Q91YK7), or~~ and
- Granulocyte Colony Stimulating Factor Receptor (G-CSF-R) ~~(Swiss Prot Ass. No: Q99062),~~

~~or fragments, or variants thereof~~.

10 (currently amended). The method according to ~~the claim 7~~ claim 1, wherein the polypeptide is ~~heparan sulphate proteoglycan is~~ perlecan (~~Swiss Prot Ass. No: P98160), or a fragment, or a variant thereof~~.

11 (currently amended). The method according to ~~the claim 7~~, claim 1, wherein the polypeptide is a metalloprotease is selected from the group ~~comprising~~ consisting of

-A disintegrin and metalloprotease-8 (ADAM-8) ~~(Swiss Prot Ass. No: Q05910),~~

-A disintegrin and metalloprotease-19 (ADAM-19) ~~(Swiss Prot Ass. Nos: Q9H013, O35674),~~

~~ADAM 8 (Swiss Prot Ass. No: P78325),~~

-A disintegrin and metalloprotease-12 (ADAM-12) ~~(Swiss Prot Ass. Nos: O43184, Q61824),~~
-A disintegrin and metalloprotease-28 (ADAM-28) ~~(Swiss Prot Ass. Nos: Q9JLN6, Q61824, Q9XSL6, Q9UKQ2),~~
-A disintegrin and metalloprotease-33 (ADAM-33) precursor ~~(Swiss Prot Ass. Nos: Q8R533, Q923W9)~~,
-A disintegrin and metalloprotease- 9 (ADAM-9) ~~(Swiss Prot Ass. Nos: Q13433, Q61072)~~,
-A disintegrin and metalloprotease-7 (ADAM-7) ~~(Swiss Prot Ass. NoS: Q9H2U9, O35227, Q63180)~~,
-A disintegrin and metalloprotease-1A (ADAM-1A) Fertilin alpha ~~(Swiss Prot Ass. No: Q8R533)~~,
-A disintegrin and metalloprotease-15 (ADAM-15) ~~(Swiss Prot Ass. Nos: Q9QYV0, O88839, Q13444),~~
-Metalloproteinase-desintegrin domain containing protein (TECAM) ~~(Swiss Prot Ass. No: AF163291)~~ , and
-Metalloproteinase 1 ~~(Swiss Prot Ass. Nos: O95204, Q9BSI6), or fragments, or variants thereof~~.

12 (currently amended). The method according to ~~the claim 7~~ claim 1, wherein the polypeptide is an extracellular matrix molecule which is selected from the group ~~comprising~~ consisting of
- Collagen type VII ~~(Swiss Prot Ass. No: Q63870)~~,
- Fibronectin ~~(Swiss Prot Ass. Nos: Q95KV4, Q95KV5, P07589, Q28377,~~
~~U42594, O95609, P11276)~~, ~~or~~ and
- Tenascin-R ~~(Swiss Prot Ass. Nos: Q15568, O00531, Q90995, P10039),~~
~~or fragments, or variants thereof~~.

13 (currently amended). The method according to ~~the claim 7~~ claim 1, wherein the polypeptide is ~~growth factor is~~

Cytokine-like factor-1 (CLF-1) ~~(Swiss Prot Ass. No:O75462), or a fragment, or a variant thereof~~.

14 (currently amended). The method according to claim 1, wherein the interaction between the ~~at least two different proteins~~ receptor and polypeptide is a low affinity interaction.

15 (currently amended) The method according to claim 14, wherein the affinity of interaction is within the range of Kd 10^{-3}-10^{-11} M, such as within the range Kd 10^{-5}-10^{-8}.

16 (cancelled).

17 (currently amended). The method according to ~~claim 16~~ claim 1, wherein the compound is a peptide ~~selected from the group comprising peptides, carbohydrates, lipids and nucleotides~~.

18 (currently amended). The method of claim 17, wherein the peptide comprises 6 to 16 contiguous amino acid residues and consists of a sequence selected from any of the amino acid sequences set forth on SEQ ID NOS: 1-10, 100, or 125, ~~or variants, or fragments of said sequences, or a combination of said sequences~~ or comprises a fragment of said sequence.

19 (cancelled).

20 (currently amended). The method of claim 17, wherein the peptide comprises 6 to 16 contiguous amino acid residues and consists of a sequence selected from any of the amino acid sequences set forth in SEQ ID NOS: 11-99, 101-124, or 126-146, ~~or variants, or fragments of said sequences, or a combination of said sequences~~ or comprises a fragment of said sequence.

21-24 (cancelled).

25 (currently amended). A screening method for a ~~candidate~~ compound capable of modulating ~~the~~ interaction between ~~at least two different proteins, wherein one of the at least two different proteins is represented by~~ a functional

cell-surface fibroblast growth factor receptor~~, or a fragment,~~ or a variant thereof, and ~~the other of the at least two different proteins is represented by~~ a polypeptide having a binding site to said receptor, wherein ~~at least a part of~~ said binding site comprises at least one of the sequences set forth in SEQ ID NOS:~~1~~ 2-146, ~~or fragments, or variants, or homologues of said sequences, or fragments or variants of said homologues,~~ said method comprising

i) providing the ~~at least two different proteins~~ polypeptides of a fibroblast growth factor receptor (FGFR) and the neural cell adhesion molecule (NCAM);

ii) providing a candidate compound which is designed by using structural data on the binding site of NCAM with FGFR;

iii) presenting the candidate compound of (ii) to the ~~at least two different proteins~~ polypeptides of (i);

iv) determining the interaction between ~~the at least two different proteins~~ NCAM and FGFR before and after the presenting of the candidate compound to said ~~proteins~~ polypeptides;

v) determining whether the interaction between ~~the at least two different proteins~~ FGFR and NCAM ~~has been~~ is modulated by the ~~presented~~ candidate compound,

vi) selecting a compound capable of modulating the interaction between ~~the at least two different proteins~~ FGFR and a polypeptide having a binding site to said receptor, wherein said binding site comprises at least one of the sequences set forth in SEQ ID NOS:2-146.

26 (currently amended). The screening method according to claim 25, wherein ~~the functional cell surface receptor~~ FGFR is selected from ~~the group as defined in claims 4-5~~ FGFR1, FGFR2, FGFR3 or FGFR4.

27 (currently amended). The screening method according to claim 25, wherein the polypeptide having a binding site for the cell-surface receptor, wherein said binding site comprises at least one of the sequences set forth in SEQ ID NOS:2-146, is selected from the group ~~comprising~~ consisting of ~~polypeptides: as defined in any of the claims 6-13~~

Neural cell adhesion molecule L1,
Neural Cell Adhesion Molecule-2 (NCAM-2),
Neuron-glia Cell Adhesion Molecule (Ng-CAM),
Neural cell adhesion molecule CALL,
Neuroglian,
Nr-CAM,
Axonin-1/TAG-1,
Axonal-associated Cell Adhesion Molecule,
Myelin-Associated Glycoprotein (MAG),
Neural cell adhesion molecule BIG-1,
Neural cell adhesion molecule BIG-2,
Fasciclin,
Neural cell adhesion molecule HNB-3/NB-3,
Neural cell adhesion molecule HNB-2/NB-2,
Cadherin,
Junctional Adhesion Molecule-1 (JAM-1)
Neural cell adhesion F3/F11(Contactin),
Neurofascin,
B-lymphocyte cell adhesion molecule CD22,
Neogenin (NEO1),
Intercellular Cell Adhesion Molecule-5 (ICAM-5/telencephalin),
Galactose binding lectin-12 (galectin-12),
Galactose binding lectin-4 (galectin-4),
Neurotrophin Tyrosin Kinase Type-2 (NTRKT-2),
Leukocyte Antigen Related Protein-Tyrosine Phosphatase (LAR-PTPRF),

Nephrin,
Protein-Tyrosine Phosphatase Receptor type S (PTPRS),
Protein-Tyrosine Phosphatase Receptor type kappa (R-PTP-kappa),
Protein-Tyrosine Phosphatase Receptor type D (PTPRD),
Ephrin type-A receptor 8,
Ephrin type-A receptor 3,
Ephrin type-A receptor 2,
Insulin Receptor (IR),
Insulin-like Growth Factor-1 Receptor (IGF-1),
Insulin-related Receptor (IRR),
Tyrosine-Protein Kinase Receptor Tie-1
Roundabout receptor-1 (robo-1),
Neuronal nicotinic acetylcholine receptor alpha 3 subunit (CHRNA3),
Neuronal acetylcholine receptor alpha 6 subunit,
Platelet-Derived Growth Factor Receptor Beta (PDGFRB),
Interleukin-6 Receptor (IL-6R),
Interleukin-23 Receptor (IL-23R),
Beta-common cytokine receptor of IL-3, IL5 and GmCsf,
Cytokine Receptor-Like molecule 3 (CRLF1),
Class I Cytokine Receptor (ZCYTOR5),
Netrin-1 receptor DCC,
Leukocyte Fc Receptor-like Protein (IFGP2),
Macrophage Scavenger Receptor 2 (MSR2),
Granulocyte Colony Stimulating Factor Receptor,
Perlecan,
A disintegrin and metalloprotease-8 (ADAM-8),
A disintegrin and metalloprotease-19 (ADAM-19),
A disintegrin and metalloprotease-12 (ADAM-12),
A disintegrin and metalloprotease-28 (ADAM-28),
A disintegrin and metalloprotease-33 (ADAM-33) precursor,

A disintegrin and metalloprotease-9 (ADAM-9),
A disintegrin and metalloprotease-7 (ADAM-7),
A disintegrin and metalloprotease-1A (ADAM-1A Fertilin alpha),
A disintegrin and metalloprotease-15 (ADAM-15),
Metalloproteinase-desintegrin domain containing protein (TECAM),
Metalloproteinase 1,
Collagen type VII,
Fibronectin,
Tenascin-R, or
Cytokine-like factor-1 (CLF-1).

28 (currently amended). The screening method according to ~~claim 27~~ claim 25, wherein the polypeptide, is NCAM ~~having the amino acid sequence set forth in Swiss Prot Seq Nos: P13591, P13595-01 or P13595, or fragments, or variants thereof, a functional homologue of NCAM.~~

29 (currently amended). The screening method according to ~~claims 25-28~~ claim 25, wherein the compound is for the manufacture of a medicament for the treatment of normal, degenerated or damaged NCAM presenting cells.

30 (currently amended). The screening method according to ~~the claims 25-28~~ claim 25, wherein the compound is for the manufacture of a medicament treatment of diseases and conditions of the central and peripheral nervous system, or of the muscles or of various organs.

31 (currently amended). The screening method according to ~~the claims 25-28~~ claim 25, wherein the compound is for the manufacture of a medicament for the treatment of diseases or conditions of the central and peripheral nervous system, such as postoperative nerve damage, traumatic nerve damage, impaired myelination of nerve fibers, postischaemic damage,

e.g. resulting from a stroke, Parkinson's disease, Alzheimer's disease, Huntington's disease, dementias such as multiinfarct dementia, sclerosis, nerve degeneration associated with diabetes mellitus, disorders affecting the circadian clock or neuro-muscular transmission, and schizophrenia, mood disorders, such as manic depression; for treatment of diseases or conditions of the muscles including conditions with impaired function of neuro-muscular connections, such as after organ transplantation, or such as genetic or traumatic atrophic muscle disorders; or for treatment of diseases or conditions of various organs, such as degenerative conditions of the gonads, of the pancreas such as diabetes mellitus type I and II, of the kidney such as nephrosis and of the heart, liver and bowel.

32 (currently amended). The screening method according to ~~the claims 25-28~~ claim 25, wherein the compound is for the manufacture of a medicament for the treatment of postoperative nerve damage, traumatic nerve damage, impaired myelination of nerve fibers, postischaemic, e.g. resulting from a stroke, Parkinson's disease, Alzheimer's disease, Huntington's disease, dementias such as multiinfarct dementia, sclerosis, nerve degeneration associated with diabetes mellitus, disorders affecting the circadian clock or neuro-muscular transmission, and schizophrenia, mood disorders, such as manic depression.

33 (currently amended). The screening method according to ~~the claims 25-28~~ claim 25, wherein the compound is for the manufacture of a medicament for the promotion of wound-healing.

34 (currently amended). The screening method according to ~~the claims 25-28~~ claim 25, wherein the compound is for the manufacture of a medicament for the treatment of cancer.

35 (currently amended). The screening method according to claim 31, wherein the cancer is any type of solid tumors requiring neoangiogenesis.

36 (currently amended). The screening method according to ~~the claims 25-28~~ claim 25, wherein the first compound is for the manufacture of a medicament for the prevention of cell death of heart muscle cells, such as after acute myocardial infarction, or after angiogenesis.

37 (currently amended). The screening method according to ~~the claims 25-28~~ claim 25, wherein the compound is for the manufacture of a medicament for revascularsation.

38 (currently amended). The screening method according to ~~the claims 25-28~~ claim 25, wherein the compound is for the manufacture of a medicament for the stimulation of the ability to learn and/or the short and/or long-term memory.

39 (currently amended). An assay for sequential screening of a candidate compound ~~capable~~ for the capability of modulating ~~the~~ interaction between ~~at least two different proteins, wherein one of the least two different proteins is represented by~~ a functional cell-surface fibroblast growth factor receptor (FGFR)~~, or a fragment,~~ or a variant thereof, and ~~the other of the at least two different proteins is represented by~~ a polypeptide having a binding site to said receptor, wherein ~~at least a part of~~ said binding site comprises at least one of the sequences set forth in SEQ ID NOS:~~1~~ 2-146, ~~or fragments, or variants, or homologues of said sequences, or fragments or variants of said homologues,~~ said method comprising ~~the steps of~~

i) providing ~~the~~ at least one functional ~~cell surface receptor~~ FGFR molecule, ~~or a fragment, or a variant thereof~~, and ~~the~~ a molecule of at least one polypeptide having a binding site to said receptor, wherein ~~at least~~

~~a part of~~ said binding site comprises at least one of the sequences set forth in SEQ ID NOS: ~~1~~ 2-146~~, or fragments, or variants, or homologues of said sequences, or a fragments or a variants of said homologues~~,

ii) presenting the at least one receptor molecule of step (i) to the at least one polypeptide of step (i), or presenting the at least one polypeptide of step (i) to the at least one receptor molecule of step (i) and permitting the interaction between the said receptor and said polypeptide, ~~followed by the~~

iii) recording the interaction between the molecules of step (ii),

iv) presenting ~~the~~ a candidate compound to the molecules of step (ii);

v) recording the interaction between the molecules of step (iv), ~~followed by the~~

vi) ~~assessment of~~ assessing at least one effect of the candidate compound on the interaction between the molecules of step (iv), ~~followed by the~~

vii) ~~selection of~~ selecting a compound capable of modulating interaction between ~~the at least one functional cell surface~~ receptor ~~molecule~~ and ~~the at least one~~ polypeptide of step (i).

40 (currently amended). The assay according to claim 39, wherein step (vii) is followed by the steps of

viii) presenting the selected ~~in~~ on step (vii) candidate compound to at least one cell presenting ~~the~~ at least one ~~functional cell surface~~ FGFR ~~receptor~~ molecule~~, or a fragment,~~ or a variant thereof, and the at least one polypeptide having a binding site to said receptor, wherein ~~at least a part of~~ said binding site comprises at

least one of the sequences set forth in SEQ ID NOS: ~~1~~ 2-146, ~~or fragments, or variants, or homologues of said sequences, or a fragments or a variants of said homologues with~~, and

ix) assessing at least one effect of the compound on the cell of step (viii).

41 (currently amended). The assay according to ~~claims 39 and 40~~ claim 39, wherein the recording of interaction between the molecules on step (iii) or step (v), and the assessment of the at least one effect of the candidate compound on step (vi) is achieved by using a method selected from ~~the group comprising~~ surface plasmon resonance analysis, nucleic magnetic resonance spectroscopy, sedimentation, immunoprecipitation, two-hybrid system, or resonance energy transfer analysis.

42 (currently amended) The assay according to claim 40, wherein the at least one effect of step (ix) is ~~being~~ selected from stimulation/inhibition of receptor phosphorylation, intracellular signal transduction, gene expression, cellular adhesion, cell motility, neuritogenesis, apoptosis, cell proliferation or synaptic plasticity.

43 (currently amended). A method for molecular design for a compound capable of modulating the interaction between ~~at least two different proteins, wherein one of the least two different proteins is represented by~~ a ~~functional cell surface~~ fibroblast growth factor receptor~~, or a fragment, or a variant thereof,~~ and ~~the other of the at least two different proteins is represented by~~ a polypeptide having a binding site for said receptor, wherein ~~at least a part of~~ said binding site comprises at least one of the sequences set forth in SEQ ID NOS: ~~1~~ 2-146~~, or fragments, or variants, or homologues of said~~

~~sequences, or fragments or variants of said homologues~~ comprising using structural data on the binding site of NCAM with FGFR.

44 (cancelled).

45 (currently amended). A peptide fragment consisting of an amino acid sequence selected from the group consisting ~~having any~~ of the following amino acid sequences:

NIEVWVEAENALGKKV (SEQ ID NO: 2),
ATNRQGKVKAFAHL (SEQ ID NO: 3),
RYVELYVVADSQEFQK (SEQ ID NO: 4),
VAENSRGKNVAKG (SEQ ID NO: 5),
GEYWCVAENQYGQR (SEQ ID NO: 6),
RLAALNGKGLGEIS (SEQ ID NO: 7),
KYIAENMKAQNVAKEI (SEQ ID NO: 8),
TIMGLKPETRYAVR (SEQ ID NO: 9),
KGLGEISAATEFKT (SEQ ID NO: 10),
NMGIWVQAENALG (SEQ ID NO: 11),
IWVQAENMLG (SEQ ID NO: 12),
EIWVEATNRLG (SEQ ID NO: 13),
VWVQAANALG (SEQ ID NO: 14),
EVWIEKDPAKGRI (SEQ ID NO: 15),
ATNKGGEVKKNGHL (SEQ ID NO: 16),
KYVELYLVADYLEFQK (SEQ ID NO: 17),
RYVELYVVVDNAEFQ (SEQ ID NO: 18),
KYVELVIVADNREFQR (SEQ ID NO: 19),
KYIEYYLVLDNGEFKR (SEQ ID NO: 20),
RYLELYIVADHTLF (SEQ ID NO: 21),
KYVEMFVVVNHQRFQ (SEQ ID NO: 22),
RYVELFIVVDKERY (SEQ ID NO: 23),
KYVELFIVADDTVYRR (SEQ ID NO: 24),
KFIELFVVADEYVYRR (SEQ ID NO: 25),
KIVEKVIVADNSEVRK (SEQ ID NO: 26),

VELVIVADHSEAQK (SEQ ID NO: 27),
VAENSRGKNIAKG (SEQ ID NO: 28),
IAENSRGKNVARG (SEQ ID NO: 29),
AENSRGKNSFRG (SEQ ID NO: 30),
IASNLRGRNLAKG (SEQ ID NO: 31),
IPENSLGKTYAKG (SEQ ID NO: 32),
IAENMKAQNEAK (SEQ ID NO: 33),
QFIAENMKSHNETKEV (SEQ ID NO: 34),
GEYWCVAKNRVGQ (SEQ ID NO: 35),
GSYTCVAENMVGK (SEQ ID NO: 36),
GKYVCVGTNMVGER (SEQ ID NO: 37),
GNYTCVVENEYG (SEQ ID NO: 38),
GEYTCLAGNSIG (SEQ ID NO: 39),
QYYCVAENGYG (SEQ ID NO: 40),
GEYYQEAEQNGYG (SEQ ID NO: 41),
GNYTCLVENEYG (SEQ ID NO: 42),
GMYQCLAENAYG (SEQ ID NO: 43),
GMYQCAENTHG (SEQ ID NO: 44),
GIYYCLASNNYG (SEQ ID NO: 45),
GGYYCTADNSYG (SEQ ID NO: 46),
GEYQCFARNDYG (SEQ ID NO: 47),
GEYFCLASNKMG (SEQ ID NO: 48),
GEYQCFARNKFG (SEQ ID NO: 49),
GEYFCLASNKMG (SEQ ID NO: 50),
GGYYCTADNNYG (SEQ ID NO: 51),
GNYSCEAENAWGTK (SEQ ID NO: 52),
GEYTCLAENSLG (SEQ ID NO: 53),
GEYECVAENGRLG (SEQ ID NO: 54),
GNYTCVVENKFGR (SEQ ID NO: 55),
GEYTCLAGNSIG (SEQ ID NO: 56),
GEYFCVASNPIG (SEQ ID NO: 57),
EYTCIANNQAGE (SEQ ID NO: 58),

GMYQCVAENKHLG (SEQ ID NO: 59),
GEYMCTASNTIGQ (SEQ ID NO: 60),
EYVCIAENKAGEQ (SEQ ID NO: 61),
GDYTLIAKNEYGK (SEQ ID NO: 62),
GFYQCVAENEAG (SEQ ID NO: 63),
GKYECVATNSAGTR (SEQ ID NO: 64),
GEYFCVYNNSLG (SEQ ID NO: 65),
GEYECAATNAHGR (SEQ ID NO: 66),
GAYWCQGTNSVGK (SEQ ID NO: 67),
GTYSCVAENILG (SEQ ID NO: 68),
RVAAVNGKGQGDYS (SEQ ID NO: 69),
RVAAINGCGIGPFS (SEQ ID NO: 70),
AVLNGKGLG (SEQ ID NO: 71),
ALNGQGLGATS (SEQ ID NO: 72),
RLAAKNRAGLGE (SEQ ID NO: 73),
RLGVVTGKDLGEI (SEQ ID NO: 74),
TVTGLKPETSYMVK (SEQ ID NO: 75),
TLTGLKPSTRYRI (SEQ ID NO: 76),
TLTGLQPSTRYRV (SEQ ID NO: 77),
TLLGLKPDTTYDIK (SEQ ID NO: 78),
TLQGLRPETAYELR (SEQ ID NO: 79),
TLRGLRPETAYELR (SEQ ID NO: 80),
TLMNLRPKTGYSVR (SEQ ID NO: 81),
TVSGLKPGTRY (SEQ ID NO: 82),
TISGLKPDTTY (SEQ ID NO: 83),
TLQGLKPDTAY (SEQ ID NO: 84),
LRGLKPWTQYAV (SEQ ID NO: 85),
IDGLEPDTEYIVR (SEQ ID NO: 86),
LQGLKPWTQYAI (SEQ ID NO: 87),
TITGLEPGTEYTIQ (SEQ ID NO: 88),
GLKPWTQYAV (SEQ ID NO: 89),
TLASLKPWTQYAV (SEQ ID NO: 90),

LMGLQPATEYIV (SEQ ID NO: 91),
KGMGPMSEAVQFRT (SEQ ID NO: 92),
TLTGLKPDTTYDVK (SEQ ID NO: 93),
ISGLQPETSYSL (SEQ ID NO: 94),
TLLGLKPDTTYDIK (SEQ ID NO: 95),
TISGLTPETTYSI (SEQ ID NO: 96),
GNYSCLAENRLGR (SEQ ID NO: 97),
GNYTCVVENRVG (SEQ ID NO: 98),
GTYHCVATNAHG (SEQ ID NO: 99),
LSHNGVLTGYLLSY (SEQ ID NO: 100),
NGVLTGYVLRY (SEQ ID NO: 101),
NGVLTGYNLRY (SEQ ID NO: 102),
NGNLTGYLLQY (SEQ ID NO: 103),
VDENGVLTGYKIYY (SEQ ID NO: 104),
THNGALVGYSVRY (SEQ ID NO: 105),
NGILTEYILKY (SEQ ID NO: 106),
NGILIGYTLRY (SEQ ID NO: 107),
THSGQITGYKIRY (SEQ ID NO: 108),
NGKITGYIIYY (SEQ ID NO: 109),
LSHNGIFTLY (SEQ ID NO: 110),
NGILTEYTLKY (SEQ ID NO: 111),
LDPNGIITQYEISY (SEQ ID NO: 112),
NGKITGYIIYY (SEQ ID NO: 113),
HLEVQAFNGRGSGPA (SEQ ID NO: 114),
HLTVRAYNGAGYGP (SEQ ID NO: 115),
HLSVKAYNSAGTGPS (SEQ ID NO: 116),
HLAVKAYNSAGTGPS (SEQ ID NO: 117),
NLEVRAFNSAGDGP (SEQ ID NO: 118),
HLTVLAYNSKGAGP (SEQ ID NO: 119),
LRVLVFNGRGDGP (SEQ ID NO: 120),
HIDVSAFNSAGYGP (SEQ ID NO: 121),
HLAVELFNGR (SEQ ID NO: 122),

LELQSINFLGGQPA (SEQ ID NO: 123),
HFTVRAYNGAGYGP (SEQ ID NO: 124),
HLEVQAFNGRGSQPA (SEQ ID NO: 125),
VIADQPTFVKYLIK (SEQ ID NO: 126),
TIKGLRPGVVYEGQ (SEQ ID NO: 127),
TLTELSPSTQYTVK (SEQ ID NO: 128),
TLDDLAPDTTYLVQ (SEQ ID NO: 129),
TVSDVTPHAIYTVR (SEQ ID NO: 130),
IIRGLNASTRYLFR (SEQ ID NO:131),
TLMNLRPKTGYSVR (SEQ ID NO:132),
TLTGLKPGTEYEVR (SEQ ID NO: 133),
GPEHLMPSSTYVAR (SEQ ID NO: 134),
RVTGLTPKKTYEFR (SEQ ID NO: 135),
LTGLKPGTEYEFR (SEQ ID NO: 136),
EVRVQAVNGGGNGPP (SEQ ID NO: 137),
LIKVVAINDRGE (SEQ ID NO: 138),
VVSIIAVNGREE (SEQ ID NO: 139),
VVSVYAQNQNGE (SEQ ID NO: 140),
TISLVAEKGRHK (SEQ ID NO: 141),
HLEVQAFNGRGSGPA (SEQ ID NO: 142),
HVEVQAFNGRGLGPA (SEQ ID NO: 143),
HVEVQAFNGRGLGPA (SEQ ID NO: 144),
EFRVRAVNGAGEG (SEQ ID NO: 145), or
VARVRTRLAPGSRLS (SEQ ID NO: 146),
or ~~fragments~~ a fragment, or variant ~~variants thereof~~ of said sequence,
herein said amino acid sequence is isolated by a method according to claim 25 or a method of claim 43.

46 (currently amended). A compound comprising at least one peptide fragment ~~having~~ consisting of at least one of the sequences set forth in SEQ ID NO: 2-146 or a fragment, or variant, or homologue of said sequences.

47 (cancelled).

48 (currently amended). An antibody capable of binding to an epitope comprising a binding site to a cell surface receptor, wherein ~~at least a part of~~ said binding site comprises at least one of the sequences set forth in SEQ ID NOS: 1-146~~, or fragments, or variants, or homologues of said sequences~~, or a fragment or a variant of said antibody.

49 (original). An antibody capable of binding to an epitope comprising at least one of the sequences set forth in SEQ ID NOS: 1-146, or a fragment, or a variant of said antibody.

50-54 (cancelled).

55 (new). A method for treating an individual in need, wherein said treatment comprising using a peptide fragment as defined in claim 45 .

56 (new). A method for treatment an individual in need, wherein said treatment comprising using an antibody capable of binding to an epitope comprising at least one of the sequences set forth in SEQ ID NOS: 1-146, or a fragment, or a variant of said antibody.

57 (new). A method for determining in a sample the presence of a substance comprising an epitope comprising at least one of the sequences set forth in SEQ ID NOS: 1-146.